

Appl. No. 10/604,426
Amdt. dated April 19, 2006
Reply to Office action of February 22, 2006

Amendments to the Claims:

1. (currently amended) An optical recording system for burning an optical disc, the optical recording system comprising:
 - a housing;
 - 5 a laser pickup installed inside the housing for writing data onto the optical disc according to a write strategy and reading an RF signal from the optical disc;
 - a laser drive installed inside the housing connected to the laser pickup for controlling operations of the laser pickup;
 - a read channel installed inside the housing connected to the laser pickup for
 - 10 processing the RF signal received by the laser pickup;
 - a jitter meter installed inside the housing connected to the read channel for generating delay signals according to the processed RF signal; and
 - a digital signal processor installed inside the housing connected to the laser drive and the jitter meter for receiving the delay signals, configuring the write
 - 15 strategy according to the delay signals, and controlling the laser drive to control the laser pickup to write data onto the optical disc according to the configured write strategy[[]];

wherein the jitter meter includes:

 - 20 a delay chain having a plurality of delay cells connected in a cascade manner, each delay cell delaying an input signal a time unit;
 - a buffer set connected to the delay chain for storing a delay signal received from the delay chain, the buffer set having a plurality of buffers each connected to a delay cell for receiving a delay bit of the delay signal transmitted from the delay cell; and
 - 25 a control unit connected to the read channel and the buffer set for outputting a control signal according to a standard clock and the processed RF signal.
2. (canceled)

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3. (canceled)
4. (currently amended) The optical recording system of claim 21 wherein each of the
5 delay cells is a flip-flop.
5. (original) The optical recording system of claim 4 wherein the flip-flop is either
rising-edge triggered or falling-edge triggered.
- 10 6. (original) The optical recording system of claim 1 wherein the optical disc
comprises a lead-in area, the processed RF signal sent to the jitter meter being
generated from an RF signal read from the lead-in area of the optical disc.
- 15 7. (original) The optical recording system of claim 1 further comprising firmware for
storing parameters and arithmetic formula.
8. (currently amended) A method for burning an optical disc in an optical recording
system comprising following steps:
(a) writing data onto the optical disc according to a write strategy and reading an
20 RF signal from the optical disc;
(b) processing the RF signal;
(c) generating delay signals according to the processed RF signal by:
 delaying the processed RF signal;
 outputting a control signal according to a standard clock and the processed
25 RF signal; and
 generating a delay signal according to the control signal and the delayed
 RF signals; and
(d) configuring the write strategy according to the delay signals[.];

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wherein the delay signal is formed by a plurality of delay bits received from a plurality of buffers, each buffer connected to a delay cell.

9. (canceled)

10. (canceled)

11. (original) The method of claim 8 wherein the RF signal is read from a lead-in area of the optical disc.

12. (currently amended) The method of claim 8 wherein the write strategy in step (d) is configured according to parameters and arithmetic formula the material and manufacturer of the optical disc.

13. (new) An optical recording system for burning an optical disc, the optical recording system comprising:
a housing;
a laser pickup installed inside the housing for writing data onto the optical disc according to a write strategy and reading an RF signal from the optical disc;
a laser drive installed inside the housing connected to the laser pickup for controlling operations of the laser pickup;
a read channel installed inside the housing connected to the laser pickup for processing the RF signal received by the laser pickup;
a jitter meter installed inside the housing connected to the read channel for generating delay signals according to the processed RF signal; and
a digital signal processor installed inside the housing connected to the laser drive and the jitter meter for receiving the delay signals, configuring the write strategy according to the delay signals, and controlling the laser drive to

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control the laser pickup to write data onto the optical disc according to the configured write strategy;

wherein the jitter meter includes:

a delay chain having a plurality of delay cells connected in a cascade manner,

5 wherein the processed RF signal is coupled to a clock input of a first delay cell, and an output of each delay cell is coupled to a clock input of a

following delay cell, each delay cell delaying an input signal a time unit;

a buffer set connected to the delay chain for storing a delay signal received from the delay chain; and

10 a control unit connected to the read channel and the buffer set for outputting a control signal according to a standard clock and the processed RF signal.

14. (new) The optical recording system of claim 13 wherein the buffer set comprises a plurality of buffers each connected to a delay cell for receiving a delay bit of the
15 delay signal transmitted from the delay cell.

15. (new) A method for burning an optical disc in an optical recording system comprising:

20 (a) writing data onto the optical disc according to a write strategy and reading an RF signal from the optical disc;

(b) processing the RF signal;

(c) generating delay signals according to the processed RF signal by:

25 delaying the processed RF signal with a delay chain having a plurality of delay cells connected in a cascade manner, the processed RF signal coupled to a clock input of a first delay cell, and an output of each delay cell coupled to a clock input of a following delay cell;

outputting a control signal according to a standard clock and the processed RF signal; and

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generating a delay signal according to the control signal and the delayed
RF signals; and

(d) configuring the write strategy according to the delay signals.

- 5 16. (new) The method of claim 15 wherein the delay signal is formed by a plurality of
delay bits received from a plurality of buffers, each buffer connected to a delay cell.